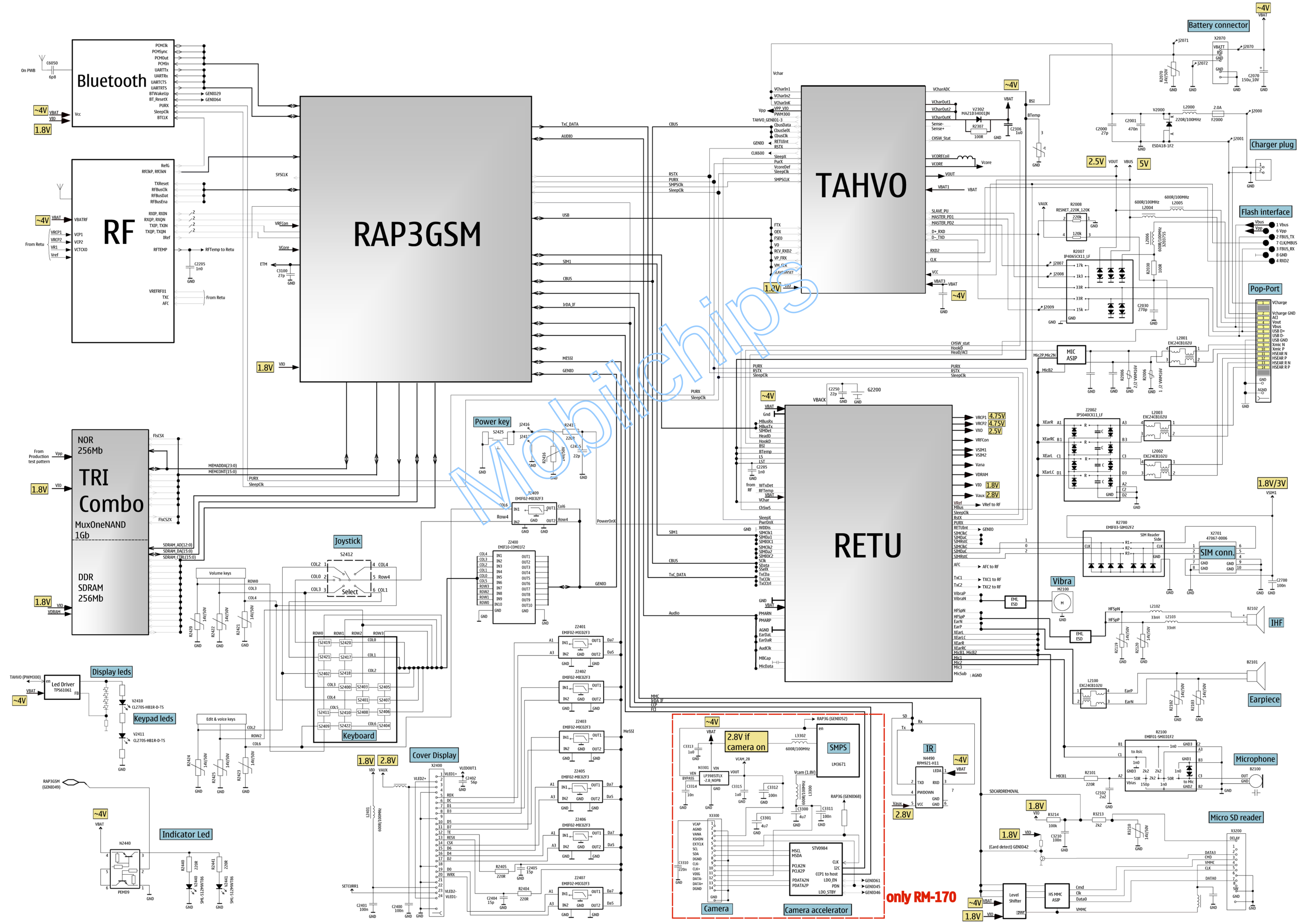
Schematics

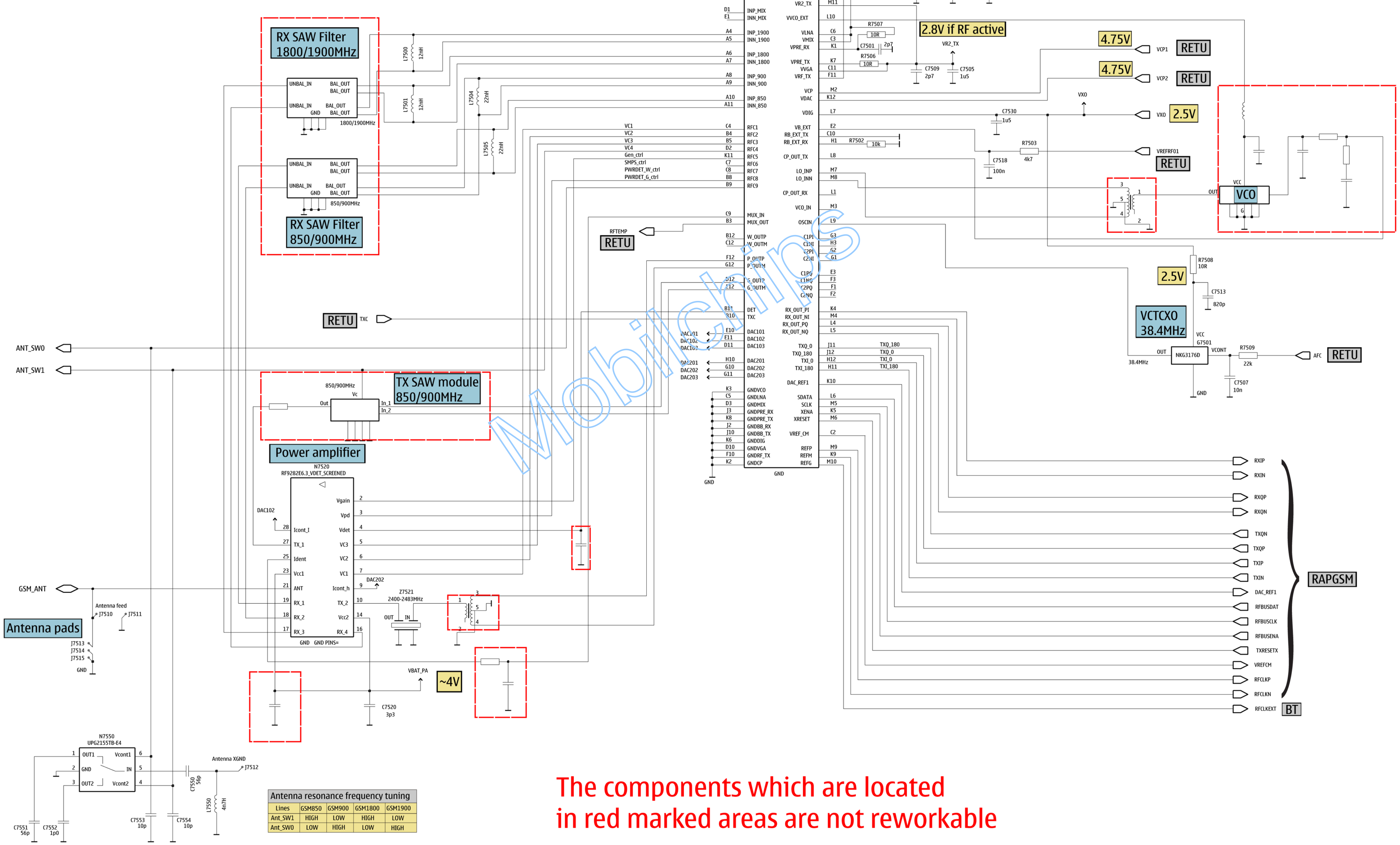
RF-BB connections



COMPANY CONFIDENTIAL

RF part

Band	Channel	RX	VCO/RX	VC/RX	TX	VCO/TX	VC/TX
GSM 850	190	881.6MHz	3526.4MHz	~1.8V	836.6MHz	3346.4MHz	~1.5V
GSM 900	37	942.4MHz	3769.6MHz	~2.73V	897.4MHz	3589.6MHz	~1.99V
GSM 1800	700	1842.8MHz	3685.6MHz	~2.39V	1747.8MHz	3495.6MHz	~1.60V
GSM 1900	661	1960.0MHz	3920.0MHz	~3.31V	1880.0MHz	3760.0MHz	~2.96V

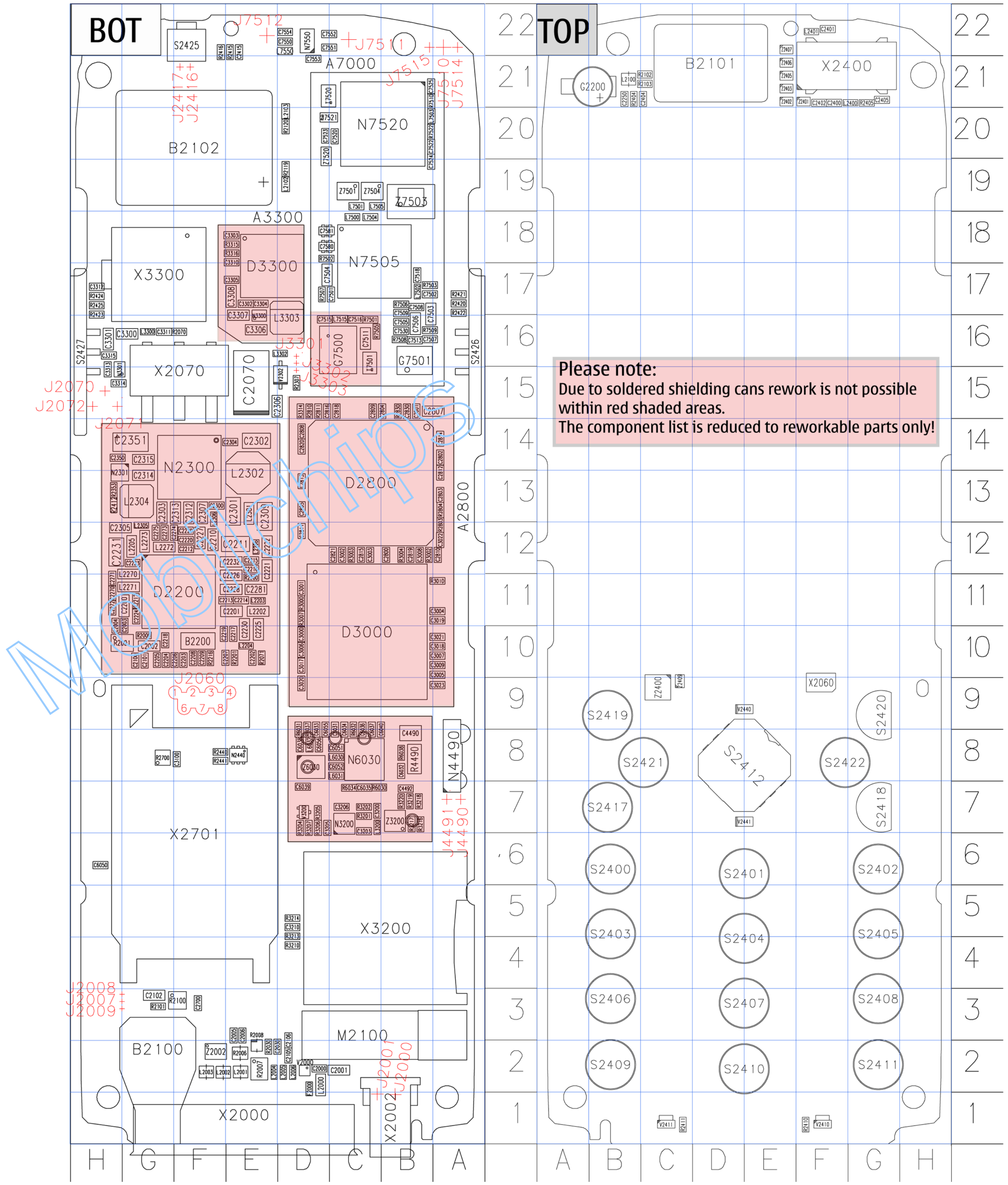


Lines	GSM850	GSM900	GSM1800	GSM1900
Ant_SW1	HIGH	LOW	HIGH	LOW
Ant_SW0	LOW	HIGH	LOW	HIGH

The components which are located
in red marked areas are not reworkable

Component finder

C		J2009	H3	R2119	D19
C2000	D2	J2060	F9	R2120	D20
C2001	C2	J2070	H15	R2307	D15
C2030	E2	J2071	H15	R2404	B21
C2070	E15	J2072	H15	R2405	G21
C2102	G3	J2416	F21	R2415	E22
C2205	G10	J2417	F21	R2416	F22
C2206	F10	J3301	D16	R2420	A17
C2250	B21	J3302	D16	R2421	A17
C2306	E15	J3303	D15	R2422	A17
C2400	F21	J7510	A22	R2423	H17
C2401	F22	J7511	C22	R2424	H17
C2402	F21	J7512	E22	R2425	H17
C2404	C21	J7514	A22	R2440	F8
C2405	G21	J7515	B22	R2441	F8
C2415	E22	L		R2700	G8
C2700	F3	L2000	D2	R3210	D4
C3100	F8	L2001	E2	R3213	D5
C3210	D5	L2002	F2	R3214	D15
C3300	G16	L2003	F2	R7502	D18
C3301	H16	L2004	E2	R7503	B17
C3310	E18	L2005	D2	R7506	B17
C3311	G16	L2006	D2	R7507	D17
C3312	H17	L2100	B21	R7508	B16
C3313	H15	L2102	D19	R7509	B16
C3314	H15	L2103	D20	S	
C3315	H16	L2401	F22	S2412	E8
C6050	H6	L3300	G16	S2425	F22
C7501	C17	L3302	D16	V	
C7503	B17	L7500	C18	V2000	D2
C7504	D17	L7501	C19	V2302	D15
C7505	B16	L7502	B17	V2410	F1
C7506	B16	L7503	B20	V2411	C1
C7507	B16	L7504	C18	V2440	E9
C7508	B17	L7505	C19	V2441	E7
C7509	B17	L7515	C16	X	
C7513	B16	L7550	D22	X2000	E1
C7518	B17	M		X2070	F15
C7520	C20	M2100	C3	X2400	F21
C7530	B16	N		X2701	F6
C7550	D22	N2440	E8	X3200	B5
C7551	D22	N3301	H15	X3300	G17
C7552	D22	N4490	A8	Z	
C7553	D21	N7505	C18	Z2002	F2
C7554	D22	N7520	B20	Z2400	C9
F		N7550	D22	Z7401	F21
F2000	D2	R		Z2402	E21
G		R2006	E2	Z2403	E21
G2200	B21	R2007	E2	Z7405	E21
G7501	B16	R2008	E2	Z7406	E21
J1490	A7	R2030	E2	Z7407	E22
J1491	A7	R2070	F16	Z2409	C9
J2000	B1	R2100	F3	Z7520	D20
J2001	C1	R2101	G3	Z7521	D20
J2007	H3	R2102	C21		
J2008	H3	R2103	C21		



Glossary

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A/D-converter	Analog-to-digital converter
ACI	Accessory Control Interface
ADC	Analog-to-digital converter
ADSP	Application DPS (expected to run high level tasks)
AGC	Automatic gain control (maintains volume)
ALS	Ambient light sensor
AMSL	After Market Service Leader
ARM	Advanced RISC Machines
ARPU	Average revenue per user (per month or per year)
ASIC	Application Specific Integrated Circuit
ASIP	Application Specific Interface Protector
B2B	Board to board, connector between PWB and UI board
BB	Baseband
BC02	Bluetooth module made by CSR
BIQUAD	Bi-quadratic ,type of filter function)
BSI	Battery Size Indicator
BT	Bluetooth
CBus	MCU controlled serial bus connected to UPP_WD2,UEME and Zocus
CCP	Compact Camera Port
CDSP	Cellular DSP (expected to run at low levels)
CLDC	Connected limited device configuration
CMOS	Complimentary metal-oxide semiconductor circuit (low power consumption)
COF	Chip on Foil
COG	Chip on Glass
CPU	Central Processing Unit
CSR	cambridge silicon radio
CSTN	Color Super Twisted Nematic
CTSI	Clock Timing Sleep and interrupt block of Tiku
CW	Continuous wave
D/A-converter	Digital-to-analouge converter
DAC	Digital-to-analouge converter
DBI	Digital Battery Interface
DBus	DSP controlled serial bus connected between UPP_WD2 and Helgo
DCT-4	Digital Core Technology
DMA	Direct memory access
DP	Data Package

DPLL	Digital Phase Locked Loop
DSP	Digital Signal Processor
DtoS	Differential to Single ended
EDGE	Enhanced data rates for global/GSM evaluation
EGSM	Extended GSM
EM	Energy management
EMC	Electromagnetic compability
EMI	Electromagnetic interference
ESD	Electrostatic discharge
FCI	Functional cover interface
FPS	Flash Programming Tool
FR	Full rate
FSTN	Film compensated super twisted nematic
GND	Ground, conductive mass
GPIB	General-purpose interface bus
GPRS	General Packet Radio Service
GSM	Group Special Mobile/Global System for Mobile communication
HF	Hands free
HFCM	Handsfree Common
HS	Handset
HSCSD	High speed circuit switched data (data transmission connection faster than GSM)
HW	Hardware
I/O	Input/Output
IBAT	Battery current
IC	Integrated circuit
ICHAR	Charger current
IF	Interface
IHF	Integrated hands free
IMEI	International Mobile Equipment Identity
IR	Infrared
IrDA	Infrared Data Associasion
ISA	Intelligent software architecture
JPEG/JPG	Joint Photographic Experts Group
LCD	Liquid Crystal Display
LDO	Low Drop Out
LED	Light-emitting diode

LPRF	Low Power Radio Frequency
MCU	Micro Controller Unit (microprocessor)
MCU	Multiport control unit
MIC, mic	Microphone
MIDP	Mobile Information Device Profile
MIN	Mobile identification number
MIPS	Million instructions per second
MMC	Multimedia card
MMS	Multimedia messaging service
NTC	Negative temperature coefficient, temperature sensitive resistor used as a temperature sensor
OMA	Object management architechture
OMAP	Operations, maintenance, and administartion part
Opamp	Operational Amplifier
PA	Power amplifier
PDA	Pocket Data Application
PDA	Personal digital assistant
PDRAM	Program/Data RAM (on chip in Tiku)
Phoenix	Software tool of DCT4.x
PIM	Personal Information Management
PLL	Phase locked loop
PM	(Phone) Permanent memory
PUP	General Purpose IO (PIO), USARTS and Pulse Width Modulators
PURX	Power-up reset
PWB	Printed Wiring Board
PWM	Pulse width modulation
RC-filter	Resistance-Capacitance filter
RF	Radio Frequency
RF PopPort TM	Reduced function PopPortTM interface
RFBUS	Serial control Bus For RF
RSK	Right Soft Key
RS-MMC	Reduced size Multi Media Card
RSSI	Receiving signal strength indicator
RST	Reset Switch
RTC	Real Time Clock (provides date and time)
RX	Radio Receiver

SARAM	Single Access RAM
SAW filter	Surface Acoustic Wave filter
SDRAM	Synchronous Dynamic Random Access Memory
SID	Security ID
SIM	Subscriber Identity Module
SMPS	Switched Mode Power Supply
SNR	Signal-to-noice ratio
SPR	Standard Product requirements
SRAM	Static random access memory
STI	Serial Trace Interface
SW	Software
SWIM	Subscriber/Wallet Identification Module
TCXO	Temperature controlled Oscillator
Tiku	Finnish for Chip, Successor of the UPP, Official Tiku3G
TX	Radio Transmitter
UART	Universal asynchronous receiver/transmitter
UEME	Universal Energy Management chip (Enhanced version)
UEMEK	See UEME
UI	User Interface
UPP	Universal Phone Processor
UPP_WD2	Communicator version of DCT4 system ASIC
USB	Universal Serial Bus
VBAT	Battery voltage
VCHAR	Charger voltage
VCO	Voltage controlled oscillator
VCTCXO	Voltage Controlled Temperature Compensated Crystal Oscillator
VCXO	Voltage Controlled Crystal Oscillator
Vp-p	Peak-to-peak voltage
VSIM	SIM voltage
WAP	Wireless application protocol
WD	Watchdog
XHTML	Extensible hypertext markup language
Zocus	Current sensor, (used to monitor the current flow to and from the battery)